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Labour Force, Australia methodology

Reference period December 2019

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Explanatory notes

Introduction

1 This publication contains estimates of the civilian labour force derived from the Labour Force Survey component of the Monthly Population Survey. The full time series for estimates from this publication are also available electronically. More detailed estimates are released one week after this publication in various electronic formats - see [Labour Force, Australia, Detailed - Electronic Delivery](#) (<https://abs.gov.au/statistics/labour/employment-and-unemployment/labour-force-australia-detailed/jul-2020>) (cat. no. 6291.0.55.001) and [Labour Force, Australia, Detailed, Quarterly](#) (<https://abs.gov.au/statistics/labour/employment-and-unemployment/labour-force-australia-detailed/may-2020>) (cat. no. 6291.0.55.003).

Concepts, sources and methods

2 The conceptual framework used in Australia's Labour Force Survey aligns closely with the standards and guidelines set out in Resolutions of International Conferences of Labour Statisticians. Descriptions of the underlying concepts and structure of Australia's labour

force statistics, and the sources and methods used in compiling the estimates, are presented in [Labour Statistics: Concepts, Sources and Methods](https://www.abs.gov.au/ausstats/abs@.nsf/Lookup/by%20Subject/6102.0.55.001~Feb%202018~Main%20Features~Overview%20of%20Labour%20Statistics~1) (<https://www.abs.gov.au/ausstats/abs@.nsf/Lookup/by%20Subject/6102.0.55.001~Feb%202018~Main%20Features~Overview%20of%20Labour%20Statistics~1>) (cat. no. 6102.0.55.001) which is available on the ABS website <http://www.abs.gov.au> (<http://www.abs.gov.au>).

Labour Force Survey

3 The Labour Force Survey is based on a multi-stage area sample of private dwellings (currently approximately 26,000 houses, flats, etc.), a list sample of non-private dwellings (hotels, motels, etc.), and covers approximately 0.32% of the civilian population of Australia aged 15 years and over.

4 Information is obtained from the occupants of selected dwellings by specially trained interviewers using computer-assisted interviewing, or self-completion online.

5 Households selected for the Labour Force Survey are interviewed each month for eight months, with one-eighth of the sample being replaced each month. The first interview is generally conducted face-to-face. Subsequent interviews are conducted by telephone (if acceptable to the respondent).

6 From December 2012 to April 2013, the ABS conducted a trial of online electronic data collection. Respondents in a single rotation group (i.e. one-eighth of the survey sample) were offered the option of self completing their labour force survey questionnaire online instead of via a face-to-face or telephone interview. From May 2013, the ABS expanded the offer of online electronic collection to 50% of each new incoming rotation group. For more information see the article in the April 2013 issue of this publication. From September 2013, online electronic collection has been offered to 100% of private dwellings in each incoming rotation group. From April 2014, 100% of private dwellings are being offered online electronic collection.

7 The interviews are generally conducted during the two weeks beginning on the Sunday between the 5th and 11th of each month. The information obtained relates to the week before the interview (i.e. the reference week). Each year, to deal with the operational difficulties involved with collecting and processing the Labour Force Survey around the Christmas and New Year holiday period, interviews for December start four weeks after November interviews start (i.e. between the 3rd and 9th December), and January interviews start five weeks after December interviews start. As a result, January interviewing may commence as early as the 7th or as late as the 13th, depending on the year. Occasionally, circumstances that present significant operational difficulties for survey collection can result

in a change to the normal pattern for the start of interviewing.

8 Estimates from the Labour Force Survey are usually published first in this publication 39 days after the commencement of interviews for that month, with the exception of estimates for each December which are usually published 46 days after the commencement of interviews.

Scope of survey

9 The Labour Force Survey includes all people aged 15 years and over except members of the permanent defence forces, certain diplomatic personnel of overseas governments customarily excluded from census and estimated population counts, overseas residents in Australia, and members of non-Australian defence forces (and their dependants) stationed in Australia.

Coverage

10 In the Labour Force Survey, coverage rules are applied which aim to ensure that each person is associated with only one dwelling, and hence has only one chance of selection. The coverage rules are necessarily a balance between theoretical and operational considerations. Nevertheless, the chance of a person being enumerated at two separate dwellings in the survey is considered to be negligible.

Population benchmarks

11 The Labour Force Survey estimates are calculated in such a way as to add to independent estimates of the civilian population aged 15 years and over (population benchmarks). These population benchmarks are based on the most recently released estimates of Final, Revised and Preliminary quarterly Estimated Resident Population (ERP). For information on the methodology used to produce the ERP see Australian Demographic Statistics (cat. no. 3101.0). Since the most recently released ERP estimates lag the current time period for Labour Force estimates by nine months, the Labour Force population benchmarks are created by projecting forward three quarters past the most recently released quarterly ERP estimates. The projection is based on the historical pattern of each population component - births, deaths, interstate migration and net overseas migration (NOM). Estimates of NOM are supplemented with other data sources to better reflect short-term population changes.

12 The revision status of quarterly ERP data changes over time from, preliminary, to revised, to final, as natural increase, overseas migration, and interstate migration component data is revised to incorporate more up to date data. These revisions flow through to the population benchmarks used to rebenchmark the Labour Force estimates on a quarterly basis.

13 Every five years, the ERP series are revised to incorporate additional information

available from the latest Census of Population and Housing (Census). Labour Force Survey population benchmarks, and the estimates, are revised following this five-yearly revision in the ERP. The process of incorporating the revised population benchmarks is referred to as 'rebasing'. The rebasing process is subject to a revision going from, preliminary rebasing approximately a year after a census, to final rebasing approximately 2 years after a census. Preliminary rebasing occurred in the November 2017 issue of [Labour Force, Australia](https://www.abs.gov.au/AUSSTATS/abs@.nsf/allprimarymainfeatures/961A70FE9EC98712CA2582180013F5DA?opendocument) (<https://www.abs.gov.au/AUSSTATS/abs@.nsf/allprimarymainfeatures/961A70FE9EC98712CA2582180013F5DA?opendocument>) (cat. no. 6202.0), at the same time revisions were made to historical Labour Force estimates from July 2011 to October 2017. The final rebasing occurred in November 2018 [Labour Force, Australia - Rebenchmarked Estimates, Oct 2018](https://www.abs.gov.au/ausstats/abs@.nsf/mf/6202.0.55.003) (<https://www.abs.gov.au/ausstats/abs@.nsf/mf/6202.0.55.003>) (cat. no. 6202.0.55.003) with the series from July 2011 to November 2018 rebenchmarked to align with final ERP benchmarks from the 2016 Census. For more information on revised ERP estimates, refer to the December 2016 issue of [Australian Demographic Statistics](https://www.abs.gov.au/AUSSTATS/abs@.nsf/allprimarymainfeatures/432B4729A87614B1CA2581A70015892B?opendocument) (<https://www.abs.gov.au/AUSSTATS/abs@.nsf/allprimarymainfeatures/432B4729A87614B1CA2581A70015892B?opendocument>) (cat. no. 3101.0) released in June 2017.

14 In between Censuses, the ABS revises the Labour Force population benchmarks using the latest ERP according to the paragraphs above. These were introduced in the July 2010, November 2012 and April 2013 issues. The revisions planned for the October 2013, April 2014 and November 2014 issues were not implemented (see What's New in the Labour Force in the September 2013 issue and [Changes in this Issue](https://www.abs.gov.au/AUSSTATS/abs@.nsf/Lookup/6202.0Main%20Features3Oct%202014) (<https://www.abs.gov.au/AUSSTATS/abs@.nsf/Lookup/6202.0Main%20Features3Oct%202014>) in the October 2014 issue of this publication). From the February 2015 issue, rebenchmarking were undertaken quarterly in the February, May, August and November issues, apart from May 2015. For more information, refer to the article Rebenchmarking of Labour Force Series in the February 2015 issue of this publication.

Estimation method

15 The estimation method used in the Labour Force Survey is Composite Estimation, which was introduced in May 2007. In January 2014 composite estimation was applied to all estimates from July 1991 as part of the 2011 Census rebenchmarking. Composite Estimation combines data collected in the previous six months with current month's data to produce the current month's estimates, thereby exploiting the high correlation between overlapping samples across months in the Labour Force Survey. The Composite Estimator combines the previous and current months' data by applying different factors according to length of time in the survey. After these factors are applied, the seven months of data are weighted to align with current month population benchmarks. For details see [Information Paper](#):

[Forthcoming Changes to Labour Force Statistics, 2007 \(https://www.abs.gov.au/AUSSTATS/abs@.nsf/allprimarymainfeatures/4C4FEEBCC72BCD8ACA257D020014933B?opendocument\)](https://www.abs.gov.au/AUSSTATS/abs@.nsf/allprimarymainfeatures/4C4FEEBCC72BCD8ACA257D020014933B?opendocument) (cat. no. 6292.0).

Comparability of series

16 From April 1986, the definition of employed people was changed to include people who worked without pay between 1 and 14 hours per week in a family business or on a farm (i.e. contributing family workers). For further information, see paragraphs 22 and 23 of the Explanatory notes section in the February 2003 issue of [Labour Force, Australia \(https://www.abs.gov.au/ausstats/abs@.nsf/mf/6203.0\)](https://www.abs.gov.au/ausstats/abs@.nsf/mf/6203.0) (cat. no. 6203.0).

17 The ABS introduced telephone interviewing into the Labour Force Survey in August 1996. Implementation was phased in for each new sample group from August 1996 to February 1997. During the period of implementation, the new method produced different estimates than would have been obtained under the old methodology. The effect dissipated over the final months of implementation and was no longer discernible from February 1997. The estimates for February 1997 and onwards are directly comparable to estimates for periods prior to August 1996. For further details, see the feature article in the June 1997 issue of [Labour Force, Australia \(https://www.abs.gov.au/AUSSTATS/abs@.nsf/allprimarymainfeatures/A4FF92535374B4C2CA25722E001B031F?opendocument\)](https://www.abs.gov.au/AUSSTATS/abs@.nsf/allprimarymainfeatures/A4FF92535374B4C2CA25722E001B031F?opendocument) (cat. no. 6203.0).

18 From April 2001 the Labour Force Survey was conducted using a redesigned questionnaire containing additional data items and some minor definitional changes. The definition of unemployed people was changed to include all people who were waiting to start work and were available to start in the reference week. This change was introduced in February 2004, when historical unit record data were revised from April 2001 to January 2004. This revision created a small trend break at April 2001 in unemployed people and unemployment rate series. For further details, see [Information Paper: Forthcoming Changes to Labour Force Statistics, 2003 \(https://www.abs.gov.au/AUSSTATS/abs@.nsf/allprimarymainfeatures/B71E8D17E6993BE1CA2572DF00150A31?opendocument\)](https://www.abs.gov.au/AUSSTATS/abs@.nsf/allprimarymainfeatures/B71E8D17E6993BE1CA2572DF00150A31?opendocument) (cat. no. 6292.0), released in December 2003. From July 2014 the Labour Force Survey questionnaire was further redesigned and definitional changes made to active job search steps and duration of job search. For further details, see the Glossary and [Information Paper: Forthcoming Changes to Labour Force Statistics, \(https://www.abs.gov.au/AUSSTATS/abs@.nsf/allprimarymainfeatures/A8F931AC3584272ECA257E5200194DB3?opendocument\)](https://www.abs.gov.au/AUSSTATS/abs@.nsf/allprimarymainfeatures/A8F931AC3584272ECA257E5200194DB3?opendocument) (cat. no. 6292.0), released in October 2014.

19 Core labour force series were revised in April 2001 for the period April 1986 to March 2001 for the remaining definitional changes introduced with the redesigned questionnaire,

to reduce the impact of the changes on labour force series. For further details, see Information Paper: Implementing the Redesigned Labour Force Survey Questionnaire (cat. no. 6295.0) and the 2004 issue of [Information Paper: Questionnaires Used in the Labour Force Survey](https://www.abs.gov.au/AUSSTATS/abs@.nsf/allprimarymainfeatures/43B3A7DD60BD112FCA257DB2001A53FB?opendocument) (<https://www.abs.gov.au/AUSSTATS/abs@.nsf/allprimarymainfeatures/43B3A7DD60BD112FCA257DB2001A53FB?opendocument>) (cat. no. 6232.0).

20 In May 2007, an improved method of estimation, known as composite estimation, was introduced into the Labour Force Survey. In introducing this change, the ABS revised unit record data from April 2001 to April 2007 based on the new estimation method. No change was identified in the trend breaks in the unemployed people and unemployment rate series which arose with the introduction of a redesigned survey form in April 2001 (as noted above in paragraph 18). In January 2014 composite estimation was applied to all estimates from July 1991 as part of the 2011 Census rebenchmarking. For further details, see [Information Paper: Forthcoming Changes to Labour Force Statistics, 2007](https://www.abs.gov.au/AUSSTATS/abs@.nsf/allprimarymainfeatures/4C4FEEBCC72BCD8ACA257D020014933B?opendocument) (<https://www.abs.gov.au/AUSSTATS/abs@.nsf/allprimarymainfeatures/4C4FEEBCC72BCD8ACA257D020014933B?opendocument>) (cat. no. 6292.0).

21 As one of a range of ABS savings initiatives for the 2008-09 financial year, there was a 24% reduction in the LFS sample size for the period July 2008 to August 2009, relative to the June 2008 sample size. The sample reduction was reversed from September 2009 to December 2009, with December 2009 estimates being the first produced under the fully reinstated sample.

Labour Force Survey sample

22 The current Labour Force Survey sample has been selected using information from the 2016 Census of Population and Housing and the ABS Address Register.

23 Between July 2018 and February 2019, a new sample was phased in over eight months with the incoming rotation group being selected from the ABS Address Register.

24 Updated sampling fractions were also phased in with the introduction of the ABS Address Register selected sample. The state sampling fraction method applies a predefined skip interval for each state which defines the probability of an address within each respective state being selected for the survey. Each incoming rotation group that was phased in had this new state skip applied.

25 Detailed information on the new sample, including the use of the ABS Address Register, can be found in [Information Paper: Labour Force Survey Sample Design, July 2018](https://www.abs.gov.au/ausstats/abs@.nsf/mf/6269.0) (<https://www.abs.gov.au/ausstats/abs@.nsf/mf/6269.0>) (cat. no. 6269.0), which was released on 30 July 2018.

Reliability of estimates

26 Two types of error are possible in an estimate based on a sample survey: sampling error and non-sampling error.

27 Sampling error occurs because a sample, rather than the entire population, is surveyed. One measure of the likely difference resulting from not including all dwellings in the survey is given by the standard error. There are about two chances in three that a sample estimate will differ by less than one standard error from the figure that would have been obtained if all dwellings had been included in the survey, and about nineteen chances in twenty that the difference will be less than two standard errors. Standard errors of key estimates for the latest month and of movements since the previous month of these estimates are shown in the standard errors section of this publication. Standard errors for other estimates and other movements may be calculated by using the spreadsheet contained in [Labour Force Survey Standard Errors, Data Cube \(<https://www.abs.gov.au/AUSSTATS/abs@.nsf/DetailsPage/6298.0.55.001Feb%202014?OpenDocument>\)](https://www.abs.gov.au/AUSSTATS/abs@.nsf/DetailsPage/6298.0.55.001Feb%202014?OpenDocument) (cat. no. 6298.0.55.001) which is available free of charge on the ABS website <http://www.abs.gov.au> (<http://www.abs.gov.au>).

28 Non-sampling error arises from inaccuracies in collecting, recording and processing the data. Every effort is made to minimise reporting error by the careful design of questionnaires, intensive training and supervision of interviewers, and efficient data processing procedures. Non-sampling error also arises because information cannot be obtained from all people selected in the survey. The Australian Labour Force Survey receives a higher level of co-operation from individuals in selected dwellings compared to other countries, with the average response rate over the past 3 years being 92.0 per cent, and the average rate over the past year being 91.75 per cent (to the nearest quarter of a per cent, in rounded terms). See Glossary for definition of response rate.

Seasonal adjustment and trend estimation

29 Any original time series can be thought of as a combination of three broad and distinctly different types of behaviour, each representing the impact of certain types of real world events on the information being collected: systematic calendar related events, short-term irregular fluctuations and long-term cyclical behaviour. A multiplicative decomposition model is applied in the seasonal adjustment of Labour Force Time Series, where the original time series (O) is considered as the product of the underlying trend (T), a systematic calendar related or seasonal component (S) and an irregular component (I). This can be expressed as $O = T \times S \times I$. The contributions of each of these behaviours varies from series to series, as well as throughout time for a given series, depending on the nature of the interactions of real world events and the data of interest.

30 Seasonal adjustment is a statistical technique that attempts to measure and remove the effects of systematic calendar related patterns including seasonal variation to reveal how a series changes from period to period. Seasonal adjustment does not aim to remove the irregular or non-seasonal influences which may be present in any particular month. This means that month-to-month movements of the seasonally adjusted estimates may not be reliable indicators of trend behaviour.

31 The Labour Force Survey uses the concurrent seasonal adjustment method to derive seasonal factors. Concurrent seasonal adjustment uses data up to the current month to estimate seasonal factors for the current and all previous months. This process can result in revisions each month to estimates for earlier periods. However, in most instances, the only noticeable revisions will be to the seasonally adjusted estimates for the previous month and one year prior to the current month. From the March 2015 issue of this publication, the effects of supplementary surveys are removed prior to the estimation of seasonal factors for key Labour Force series from February 1978 onwards. While this methodology has addressed short term volatility in the seasonally adjusted series arising from changes to the timing and content of the supplementary survey program, in general prior corrections and resulting changed seasonal patterns can be identified and measured to a more reliable degree of certainty after three successive observations (in this case after three years). For further details refer to the October and December 2014 issues of this publication.

32 The revision properties of the seasonally adjusted and trend estimates can be improved by the use of Autoregressive Integrated Moving Average (ARIMA) modelling. ARIMA modelling relies on the characteristics of the series being analysed to project future period data. The projected values are temporary, intermediate values, that are only used internally to improve the estimation of the seasonal factors. The projected data do not affect the original estimates and are discarded at the end of the seasonal adjustment process. The Labour Force Survey uses an ARIMA model for the majority of the individual time series. The ARIMA model is assessed as part of the annual reanalysis. For further details, see the feature article in the October 2004 issue of [Australian Economic Indicators \(<https://www.abs.gov.au/AUSSTATS/abs@.nsf/allprimarymainfeatures/3CE6868CC5904CA6CA2570B1002A6877?opendocument>\)](https://www.abs.gov.au/AUSSTATS/abs@.nsf/allprimarymainfeatures/3CE6868CC5904CA6CA2570B1002A6877?opendocument) (cat. no. 1350.0).

33 Seasonal adjustment is able to remove the effect of events which occur at the same time in the survey every year. However, there are some events, like holidays, which are not always at the same time in the survey cycle or which are not at the same time across Australia. The effects of these types of events on Labour Force Survey estimates cannot in all cases be removed, because the pattern of their effects cannot be determined. However, two events for which adjustment is made in the seasonally adjusted series are the January interview start date and the timing of Easter. For further details, see [Information Paper](#):

Forthcoming Changes to Labour Force Statistics (<https://www.abs.gov.au/AUSSTATS/abs@.nsf/allprimarymainfeatures/B71E8D17E6993BE1CA2572DF00150A31>)(cat. no. 6292.0) released in December 2003.

34 While seasonal factors for the complete time series are estimated each month, they will continue to be reviewed annually at a more detailed level to take into account each additional year's original data. This annual review will not normally result in significant changes to published estimates. The review is usually conducted early each year with the results released in this publication shortly thereafter.

35 The smoothing of seasonally adjusted series to produce 'trend' series reduces the impact of the irregular component of the seasonally adjusted series. These trend estimates are derived by applying a 13-term Henderson-weighted moving average to all months except the last six. The last six monthly trend estimates are obtained by applying surrogates of the Henderson average to the seasonally adjusted series. Trend estimates are used to analyse the underlying behaviour of a series over time.

36 While this smoothing technique enables estimates to be produced for the latest month, it does result in revisions in addition to those caused by the revision of seasonally adjusted estimates. Generally, revisions due to the use of surrogates of the Henderson average become smaller, and after three months have a negligible impact on the series

37 Trend estimates are published for the Northern Territory in table 10 and for the Australian Capital Territory in table 11. Unadjusted series for the two Territories have shown, historically, a high degree of variability, which can lead to considerable revisions to the seasonally adjusted estimates each month when seasonal factors are estimated. For this reason, seasonally adjusted estimates are not currently published for the two Territories. In addition, caution should be exercised in the interpretation of trend estimates for the two Territories, particularly for the three most recent months, where revisions may be relatively large.

38 For further information, see A Guide to Interpreting Time Series - Monitoring Trends (<https://www.abs.gov.au/ausstats/abs@.nsf/mf/1349.0>)(cat. no. 1349.0).

Related publications

39 Users may also wish to refer to the following publications and other data products that are available free of charge from the ABS website:

- Labour Force Survey Standard Products and Data Item Guide (<https://www.abs.gov.au/ausstats/abs@.nsf/mf/6103.0>)(cat. no. 6103.0)
- Labour Force, Australia, Detailed (<https://www.abs.gov.au/ausstats/abs@.nsf/mf/>)

[6291.0.55.001](#)) (cat. no. 6291.0.55.001)

- [Labour Force, Australia, Detailed Quarterly](#) (<https://www.abs.gov.au/ausstats/abs@.nsf/mf/6291.0.55.003>) (cat. no. 6291.0.55.003)
- [Labour Force Survey Standard Errors, Data Cube](#) (<https://www.abs.gov.au/ausstats/abs@.nsf/mf/6298.0.55.001>) (cat. no. 6298.0.55.001)
- [Labour force, Australia - Rebenchmarked Estimates](#) (<https://www.abs.gov.au/ausstats/abs@.nsf/mf/6202.0.55.003>) (cat. no. 6202.0.55.003)
- [Labour Statistics: Concepts, Sources and Methods](#) (<https://www.abs.gov.au/ausstats/abs@.nsf/mf/6102.0.55.001>) (cat. no. 6102.0.55.001)
- [Australian Demographic Statistics](#) (<https://www.abs.gov.au/ausstats/abs@.nsf/mf/3101.0>) (cat. no. 3101.0)
- [Australian Labour Market Statistics](#) (<https://www.abs.gov.au/ausstats/abs@.nsf/mf/6105.0>) (cat. no. 6105.0)
- [Labour Force, Australia](#) (<https://www.abs.gov.au/ausstats/abs@.nsf/mf/6203.0>) (cat. no. 6203.0)
- [Information Paper: Outcomes of the Labour Household Surveys Content Review](#) (<https://www.abs.gov.au/ausstats/abs@.nsf/mf/6107.0>) (cat. no. 6107.0)
- [Information Paper: Questionnaires Used in the Labour Force Survey](#) (<https://www.abs.gov.au/ausstats/abs@.nsf/mf/6232.0>) (cat. no. 6232.0)
- [Information Paper: Regional Labour Force Statistics](#) (<https://www.abs.gov.au/ausstats/abs@.nsf/mf/6262.0>) (cat. no. 6262.0)
- [Information Paper: Labour Force Sample Design](#) (<https://www.abs.gov.au/ausstats/abs@.nsf/mf/6269.0>) (cat. no. 6269.0)
- [Information Paper: Forthcoming Changes to Labour Force Statistics](#) (<https://www.abs.gov.au/ausstats/abs@.nsf/mf/6292.0>) (cat. no. 6292.0)
- [Information Paper: Expansion of Hours Worked Estimates from the Labour Force Survey](#) (<https://www.abs.gov.au/ausstats/abs@.nsf/mf/6290.0.55.001>) (cat. no. 6290.0.55.001)

40 Current publications and other products released by the ABS are listed on the ABS website <http://www.abs.gov.au> (<http://www.abs.gov.au>). The ABS also issues a daily Release Advice on the website which details products to be released in the week ahead.

Data available on request

41 As well as the statistics included in this and related publications, the ABS may have other relevant data available. Inquiries should be made via email client.services@abs.gov.au (<mailto:client.services@abs.gov.au>) or contact the National Information and Referral Service on 1300 135 070.

Effects of rounding

42 Estimates have been rounded and discrepancies may occur between sums of the component items and totals. Estimates of movement shown in this publication are obtained by taking the difference of unrounded estimates. The movement estimate is then rounded. Where a discrepancy occurs between the reported movement and the difference of the rounded estimates, the reported movement will be more accurate.

Standard errors

The estimates in this publication are based on information gained from the occupants of a sample survey of dwellings. Because the entire population is not surveyed, the published original, seasonally adjusted and trend estimates are subject to sampling error. The most common way of quantifying such sampling error is to calculate the standard error for the published estimate or statistic. For more information, see paragraphs 25 to 27 of the Explanatory notes section.

Level estimates

To illustrate, let us say the published level estimate for employed people aged 15-19 years is 700,000 and the associated standard error is 9,000. The standard error is then used to interpret the level estimate of 700,000. For instance, the standard error of 9,000 indicates that:

- There are approximately two chances in three that the real value falls within the range 691,000 to 709,000 (700,000 + or - 9,000)
- There are approximately nineteen chances in twenty that the real value falls within the range 682,000 to 718,000 (700,000 + or - 18,000).

The real value in this case is the result we would obtain if we could enumerate the total population.

The following table shows the standard errors for this month's level estimates.

| | NSW | Vic. | QLD | SA | WA | Tas. | NT | ACT | Australia | | |
|--|------------|------|------|-----|------|------|-----|-----|-----------|---------|--------|
| | | | | | | | | | Males | Females | People |
| Aged 15 years and over | | | | | | | | | | | |
| Employed | | | | | | | | | | | |
| Full time | ('000)26.5 | 20.0 | 17.9 | 7.5 | 11.2 | 2.9 | 2.3 | 2.9 | 32.8 | 25.4 | 40.0 |
| Part time | ('000)19.4 | 13.4 | 12.4 | 5.8 | 8.5 | 2.4 | 0.8 | 2.2 | 14.9 | 22.6 | 28.2 |
| Total | ('000)28.9 | 24.6 | 20.5 | 8.8 | 12.4 | 3.5 | 2.8 | 3.1 | 36.1 | 34.5 | 45.2 |
| Unemployed | | | | | | | | | | | |
| Looking for f/t | ('000)8.6 | 7.6 | 7.9 | 3.2 | 4.5 | 1.1 | 0.8 | 0.7 | 11.5 | 9.4 | 15.0 |
| Looking for only p/t | ('000)5.3 | 5.2 | 4.8 | 1.9 | 3.0 | 0.7 | 0.3 | 0.7 | 6.4 | 6.9 | 9.5 |
| Total | ('000)10.2 | 9.3 | 9.0 | 3.7 | 5.4 | 1.3 | 0.9 | 1.0 | 13.3 | 11.8 | 18.0 |
| Labour force | ('000)29.1 | 25.2 | 20.9 | 8.9 | 12.6 | 3.6 | 2.9 | 3.1 | 36.9 | 35.2 | 45.9 |
| Not in labour force | ('000)24.3 | 21.5 | 22.9 | 8.3 | 12.0 | 3.6 | 3.0 | 3.1 | 31.6 | 35.9 | 42.5 |
| Unemployment rate | | | | | | | | | | | |
| Looking for f/t | pts 0.3 | 0.3 | 0.4 | 0.5 | 0.5 | 0.6 | 0.7 | 0.4 | 0.2 | 0.3 | 0.2 |
| Looking for only p/t | pts 0.4 | 0.4 | 0.6 | 0.6 | 0.6 | 0.7 | 1.0 | 1.0 | 0.4 | 0.2 | 0.2 |
| Total | pts 0.2 | 0.3 | 0.3 | 0.4 | 0.4 | 0.5 | 0.7 | 0.4 | 0.2 | 0.2 | 0.1 |
| Participation rate | pts 0.4 | 0.5 | 0.5 | 0.6 | 0.6 | 0.8 | 1.6 | 0.9 | 0.4 | 0.3 | 0.2 |
| Aged 15-19 years | | | | | | | | | | | |
| Employed | | | | | | | | | | | |
| Full time | ('000)4.0 | 2.2 | 2.8 | 1.1 | 1.7 | 0.5 | 0.2 | 0.4 | 4.8 | 4.0 | 5.8 |
| Part time | ('000)6.2 | 3.8 | 4.2 | 1.8 | 2.4 | 0.8 | 0.2 | 0.8 | 6.6 | 7.3 | 9.5 |
| Total | ('000)7.1 | 4.3 | 5.0 | 2.0 | 2.8 | 0.9 | 0.3 | 0.9 | 7.7 | 8.0 | 10.9 |
| Unemployed | | | | | | | | | | | |
| Looking for f/t | ('000)2.8 | 2.5 | 2.7 | 1.4 | 1.9 | 0.4 | 0.3 | 0.2 | 4.2 | 3.4 | 5.4 |
| Looking for only p/t | ('000)3.7 | 3.0 | 3.4 | 1.2 | 2.2 | 0.4 | 0.1 | 0.4 | 4.8 | 4.3 | 6.4 |
| Total | ('000)4.8 | 4.0 | 4.5 | 1.9 | 2.9 | 0.6 | 0.3 | 0.5 | 6.4 | 5.5 | 8.5 |
| Labour force | ('000)7.9 | 4.8 | 5.6 | 2.3 | 3.3 | 0.9 | 0.3 | 0.9 | 8.6 | 8.6 | 12.0 |
| Not in labour force | ('000)8.7 | 5.7 | 7.7 | 2.7 | 4.0 | 1.0 | 0.7 | 1.2 | 10.2 | 9.4 | 14.2 |
| Unemployment rate | | | | | | | | | | | |
| Looking for f/t | pts 3.7 | 4.7 | 4.3 | 7.2 | 6.4 | 7.2 | 8.8 | 8.6 | 2.7 | 3.5 | 2.2 |
| Looking for only p/t | pts 1.8 | 1.8 | 2.5 | 2.7 | 3.4 | 2.9 | 2.4 | 3.5 | 1.6 | 1.2 | 1.0 |
| Total | pts 1.7 | 1.9 | 2.3 | 3.0 | 3.1 | 2.9 | 3.8 | 3.3 | 1.4 | 1.2 | 0.9 |
| Participation rate | pts 1.7 | 1.2 | 1.8 | 2.2 | 2.2 | 3.0 | 2.0 | 3.9 | 1.1 | 1.2 | 0.8 |
| Unemployment to population ratio - looking for f/t | pts 0.6 | 0.6 | 0.8 | 1.4 | 1.2 | 1.2 | 1.8 | 0.9 | 0.5 | 0.5 | 0.4 |

Movement estimates

The following example illustrates how to use the standard error to interpret a movement estimate. Let us say that one month the published level estimate for females employed part-time in Australia is 1,890,000; the next month the published level estimate is 1,900,000 and the associated standard error for the movement estimate is 11,900. The standard error is then used to interpret the published movement estimate of 10,000. For instance, the standard error of 11,900 indicates that:

- There are approximately two chances in three that the real movement between the two months falls within the range - 1,900 to 21,900 (10,000 + or - 11,900)
- There are approximately nineteen chances in twenty that the real movement falls within the range - 13,800 to 33,800 (10,000 + or - 23,800).

The following table shows the standard errors for this month's movement estimates.

| | NSW | Vic. | QLD | SA | WA | Tas. | NT | ACT | Australia | | |
|--|------------|------|------|-----|-----|------|-----|-----|-----------|---------|--------|
| | | | | | | | | | Males | Females | People |
| Aged 15 years and over | | | | | | | | | | | |
| Employed | | | | | | | | | | | |
| Full time | ('000)15.9 | 13.2 | 9.9 | 4.0 | 6.6 | 1.8 | 1.8 | 1.9 | 19.1 | 14.8 | 24.9 |
| Part time | ('000)10.3 | 9.1 | 6.2 | 3.0 | 4.4 | 1.4 | 0.9 | 1.2 | 9.3 | 13.4 | 16.3 |
| Total | ('000)19.2 | 16.3 | 13.9 | 5.8 | 8.7 | 2.3 | 2.0 | 2.3 | 21.5 | 20.3 | 30.8 |
| Unemployed | | | | | | | | | | | |
| Looking for f/t | ('000)8.8 | 7.5 | 7.6 | 3.3 | 4.7 | 1.1 | 0.9 | 1.0 | 11.4 | 9.4 | 15.0 |
| Looking for only p/t | ('000)5.6 | 5.1 | 4.3 | 2.0 | 3.2 | 0.7 | 0.4 | 0.9 | 6.4 | 7.2 | 9.5 |
| Total | ('000)10.5 | 9.1 | 8.9 | 3.8 | 5.7 | 1.3 | 0.9 | 1.2 | 13.2 | 11.8 | 17.9 |
| Labour force | ('000)19.7 | 16.7 | 14.7 | 6.2 | 9.1 | 2.4 | 2.1 | 2.3 | 22.1 | 20.8 | 31.7 |
| Not in labour force | ('000)18.3 | 15.7 | 14.3 | 5.9 | 8.9 | 2.2 | 2.0 | 2.4 | 18.6 | 22.1 | 30.1 |
| Unemployment rate | | | | | | | | | | | |
| Looking for f/t | pts 0.3 | 0.3 | 0.4 | 0.6 | 0.5 | 0.7 | 0.8 | 0.5 | 0.2 | 0.3 | 0.2 |
| Looking for only p/t | pts 0.4 | 0.4 | 0.6 | 0.6 | 0.7 | 0.7 | 1.0 | 0.9 | 0.5 | 0.3 | 0.2 |
| Total | pts 0.2 | 0.3 | 0.3 | 0.4 | 0.4 | 0.5 | 0.7 | 0.4 | 0.2 | 0.2 | 0.1 |
| Participation rate | pts 0.3 | 0.3 | 0.4 | 0.4 | 0.4 | 0.5 | 1.1 | 0.7 | 0.2 | 0.2 | 0.2 |
| Aged 15-19 years | | | | | | | | | | | |
| Employed | | | | | | | | | | | |
| Full time | ('000)2.6 | 2.0 | 1.9 | 0.7 | 1.2 | 0.3 | 0.3 | 0.3 | 3.4 | 2.9 | 4.0 |
| Part time | ('000)4.2 | 3.5 | 2.7 | 1.2 | 1.8 | 0.5 | 0.4 | 0.6 | 4.5 | 5.0 | 6.3 |
| Total | ('000)4.7 | 3.8 | 3.1 | 1.4 | 2.0 | 0.6 | 0.5 | 0.6 | 5.2 | 5.4 | 7.0 |
| Unemployed | | | | | | | | | | | |
| Looking for f/t | ('000)3.4 | 2.5 | 2.4 | 1.4 | 2.0 | 0.4 | 0.3 | 0.2 | 4.2 | 3.5 | 5.4 |
| Looking for only p/t | ('000)3.8 | 3.1 | 3.0 | 1.2 | 2.3 | 0.4 | 0.1 | 0.5 | 4.8 | 4.4 | 6.4 |
| Total | ('000)5.1 | 4.0 | 3.9 | 1.9 | 3.1 | 0.6 | 0.4 | 0.6 | 6.4 | 5.6 | 8.4 |
| Labour force | ('000)5.0 | 4.1 | 3.3 | 1.5 | 2.3 | 0.7 | 0.5 | 0.6 | 5.7 | 5.7 | 7.7 |
| Not in labour force | ('000)5.8 | 5.0 | 3.8 | 1.8 | 2.8 | 0.7 | 0.8 | 0.7 | 7.0 | 6.5 | 9.1 |
| Unemployment rate | | | | | | | | | | | |
| Looking for f/t | pts 4.6 | 4.9 | 4.9 | 7.8 | 7.6 | 7.9 | 9.0 | 8.9 | 2.9 | 4.4 | 2.5 |
| Looking for only p/t | pts 1.9 | 2.0 | 2.5 | 2.8 | 3.4 | 3.2 | 2.6 | 3.4 | 1.7 | 1.3 | 1.1 |
| Total | pts 1.9 | 2.0 | 2.4 | 3.1 | 3.3 | 3.1 | 4.0 | 3.1 | 1.5 | 1.4 | 1.0 |
| Participation rate | pts 1.1 | 1.1 | 1.0 | 1.5 | 1.5 | 2.1 | 3.3 | 2.7 | 0.7 | 0.8 | 0.5 |
| Unemployment to population ratio - looking for f/t | pts 0.7 | 0.7 | 0.8 | 1.4 | 1.3 | 1.1 | 1.9 | 1.0 | 0.5 | 0.5 | 0.4 |

Glossary

Show all

Actively looked for work

Actively looked for work includes:

- written, telephoned or applied to an employer for work;
- had an interview with an employer for work;
- answered an advertisement for a job;
- checked or registered with an employment agency;
- taken steps to purchase or start your own business;
- advertised or tendered for work; and
- contacted friends or relatives in order to obtain work.

Actual hours of work

Actual hours of work refers to a specified reference period (e.g. a week) and includes:

- hours actually worked during normal periods of work;
- time spent in addition to hours worked during normal periods of work (including overtime);
- time spent at the place of work on activities such as the preparation of the workplace, repairs and maintenance, preparation and cleaning of tools, and the preparation of receipts, time sheets and reports;
- time spent at the place of work waiting or standing by due to machinery or process breakdown, accident, lack of supplies, power or internet access, etc;
- time corresponding to short rest periods (resting time) including tea and coffee breaks or prayer breaks;
- travel time connected to work (excluding commuting time); and
- training and skills enhancement related to the job or employer.

Excluded are:

- hours paid for but not worked, such as paid annual leave, public holidays or paid sick leave;
- meal breaks (e.g. lunch breaks);
- paid and unpaid time 'on call';
- time spent on travel to and from work when no productive activity for the job is performed (e.g. commuting time); and
- time off during working hours to attend outside educational activities, even if it is authorised, e.g. those not connected to the job or employer.

For multiple job holders the LFS collects a separate measure of actual hours worked in main job and in all jobs.

Attending full time education

People aged 15-24 years enrolled at secondary or high school or enrolled as a full time student at a Technical and Further Education (TAFE) college, university, or other educational institution in the reference week.

Attending school

People aged 15-19 years enrolled at secondary or high school in the reference week.

Attending tertiary educational institution full time

People aged 15-24 years enrolled full time at a TAFE college, university, or other educational institution in the reference week, except those people aged 15-19 years who were still attending school.

Civilian population aged 15 years and over

All usual residents of Australia aged 15 years and over except members of the permanent defence forces, certain diplomatic personnel of overseas governments customarily excluded from census and estimated population counts, overseas residents in Australia, and members of non-Australian defence forces (and their dependants) stationed in Australia.

Composite estimation

The estimation methodology used in the Labour Force Survey. Composite Estimation uses sample responses from nearby months as well as from the reference month to derive estimates for the reference month. This approach achieves gains in efficiency by exploiting the high similarity between the responses provided by the same respondent in previous months. For details see [Information Paper: Forthcoming Changes to Labour Force Statistics 2007 \(<https://www.abs.gov.au/AUSSTATS/abs@.nsf/allprimarymainfeatures/4C4FEEBCC72BCD8ACA257D020014933B?opendocument>\)](https://www.abs.gov.au/AUSSTATS/abs@.nsf/allprimarymainfeatures/4C4FEEBCC72BCD8ACA257D020014933B?opendocument) (cat. no. 6292.0).

Employed

All people aged 15 years and over who met one of the following criteria during the reference week:

- Worked for one hour or more for pay, profit, commission or payment in kind, in a job or business or on a farm (employees and owner managers of incorporated or unincorporated enterprises).
- Worked for one hour or more without pay in a family business or on a farm (contributing family workers).
- Were employees who had a job but were not at work and were:
 - away from work for less than four weeks up to the end of the reference week; or
 - away from work for more than four weeks up to the end of the reference week and received pay for some or all of the four week period to the end of the reference week; or
 - away from work as a standard work or shift arrangement; or
 - on strike or locked out; or
 - on workers' compensation and expected to return to their job.
- Were owner managers who had a job, business or farm, but were not at work.

Employed full-time

Includes employed people who usually worked 35 hours or more a week (in all jobs) and those who, although usually working less than 35 hours a week, worked 35 hours or more during the reference week.

Employed part-time

Includes employed people who usually worked less than 35 hours a week (in all jobs) and either did so during the reference week, or were not at work in the reference week.

Employment to population ratio

For any group, the number of employed people expressed as a percentage of the civilian population in the same group.

Estimated resident population (ERP)

Estimated resident population (ERP), is Australia's official measure of the population of Australia and is based on the concept of usual residence. It refers to all people, regardless of nationality, citizenship or legal status, who usually live in Australia, with the exception of foreign diplomatic personnel and their families. It includes usual residents who are overseas for fewer than 12 months. It excludes overseas visitors who are in Australia for fewer than 12 months. Refer to Australian Demographic Statistics (cat. no. 3101.0).

Flow estimates

Flow estimates are a measure of activity over a given period. For example, monthly hours worked in all jobs is a measure of the total number of hours worked in a calendar month.

Gross flows

The matching of respondents who report in consecutive months enables analysis of the transition of individuals between the different labour force status classifications, referred to as the matched sample. The transition counts between the different labour force status classifications from one point in time to the next are commonly referred to as gross flows.

The figures presented in gross flows are presented in original terms only and do not align with published labour force estimates. The gross flows figures are derived from the matched sample between consecutive months, which after taking account of the sample rotation and varying non-response in each month is approximately 80 percent of the sample.

Caution should be exercised when analysing these gross flows data due to:

- the figures presented sum to approximately 80 percent of the population values as the gross flows data are based on the matched sample only;

- there is no adjustment applied to account for changes due to seasonal patterns (referred to commonly as seasonal adjustment); and
- the estimates of relative sizes of each transition class are subject to bias due to the matched sample being a non-representative sample.

Labour force

For any group, people who were employed or unemployed, as defined.

Labour force status

A classification of the civilian population aged 15 years and over into employed, unemployed or not in the labour force, as defined. The definitions conform closely to the international standard definitions adopted by the International Conferences of Labour Statisticians.

Long-term unemployed

The number of people unemployed for 52 weeks or over.

Long-term unemployment ratio

The number of long-term unemployed people, expressed as a percentage of the total unemployed population.

Market sector

The market sector is an industry grouping comprising the following industries: Agriculture, forestry and fishing; Mining; Manufacturing; Electricity, gas, water and waste services; Construction; Wholesale trade; Retail trade; Accommodation and food services; Transport, postal and warehousing; Information media and telecommunications; Finance and insurance services; Rental, hiring and real estate services; Professional, scientific and technical services; Administrative and support services; Arts and recreation services; and Other services. Refer to [Australian System of National Accounts: Concepts, Sources and Methods \(https://www.abs.gov.au/AUSSTATS/abs@.nsf/DetailsPage/5216.02015?OpenDocument\)](https://www.abs.gov.au/AUSSTATS/abs@.nsf/DetailsPage/5216.02015?OpenDocument) (cat. no. 5216.0).

Non-market sector

The non-market sector is an industry grouping comprising the following industries: Education and training; Public administration & safety; and Health care and social assistance. Refer to [Australian System of National Accounts: Concepts, Sources and Methods \(https://www.abs.gov.au/AUSSTATS/abs@.nsf/DetailsPage/5216.02015?OpenDocument\)](https://www.abs.gov.au/AUSSTATS/abs@.nsf/DetailsPage/5216.02015?OpenDocument) (cat. no. 5216.0)

Monthly hours worked in all jobs

Monthly hours worked in all jobs measures the total number of actual hours worked by employed people in a calendar month. It differs from the actual hours worked estimates (and the usual hours worked estimates) since these refer only to the hours worked in the reference week.

The methodology used to produce monthly hours worked in all jobs means that these are synthetic estimates. Seasonally adjusted and trend estimates of monthly hours worked in all jobs are available for the period July 1978 onwards.

Further information on the methodology used to produce the monthly hours worked in all jobs estimates is available on the ABS website in [Information Paper: Expansion of Hours Worked Estimates from the Labour Force Survey \(https://www.abs.gov.au/AUSSTATS/abs@.nsf/Lookup/6290.0.55.001Main+Features12009?OpenDocument\)](https://www.abs.gov.au/AUSSTATS/abs@.nsf/Lookup/6290.0.55.001Main+Features12009?OpenDocument) (cat. no. 6290.0.55.001).

Actual and usual hours worked cannot be aggregated across time to produce either quarterly or annual estimates as they relate to only a single week in the month. In contrast, monthly hours worked in all jobs estimates are a true monthly measure, and may be aggregated across time to produce both quarterly and annual estimates.

Not in labour force

People who were not in the categories employed or unemployed, as defined. They include people who undertook unpaid household duties or other voluntary work only, were retired, voluntarily inactive and those permanently unable to work.

Participation rate

For any group, the labour force expressed as a percentage of the civilian population aged 15 years and over in the same group.

Response rate

The number of fully responding dwellings expressed as a percentage of the total number of dwellings excluding sample loss. Examples of sample loss include: dwellings where all people are out of scope and/or coverage; vacant dwellings; dwellings under construction; dwellings converted to non-dwellings; derelict dwellings; and demolished dwellings.

Seasonally adjusted series

A time series of estimates with the estimated effects of normal seasonal variation removed. See Explanatory notes section for more detail.

Stock estimates

Stock estimates are a measure of certain attributes at a point in time and can be thought of as stocktakes. For example, the total number of employed people is an account of the number of people who were considered employed in the Labour Force Survey reference week.

Trend series

A smoothed seasonally adjusted series of estimates. See Explanatory notes section for more detail.

Underemployment rate (proportion of labour force)

The number of underemployed workers expressed as a percentage of the labour force.

Underemployment ratio (proportion of employed)

The number of underemployed workers expressed as a percentage of total employed people.

Underemployed workers

Employed people aged 15 years and over who want, and are available for, more hours of work than they currently have. They comprise:

- people employed part time who want to work more hours and are available to start work with more hours, either in the reference week or in the four weeks subsequent to the survey; or
- people employed full time who worked part time hours in the reference week for economic reasons (such as being stood down or insufficient work being available). It is assumed that these people wanted to work full time in the reference week and would have been available to do so.

Underutilisation rate

The sum of the number of people unemployed and the number of people in underemployment, expressed as a proportion of the labour force.

Unemployed

people aged 15 years and over who were not employed during the reference week, and:

- had actively looked for full time or part time work at any time in the four weeks up to the end of the reference week and were available for work in the reference week; or
- were waiting to start a new job within four weeks from the end of the reference week

and could have started in the reference week if the job had been available then.

Unemployed looked for full time work

Unemployed people who:

- actively looked for full time and part time work; or
- were waiting to start a new full time job.

Unemployed looked for only part time work

Unemployed people who:

- actively looked for part time work only; or
- were waiting to start a new part time job.

Unemployment rate

For any group, the number of unemployed people expressed as a percentage of the labour force in the same group.

Usual hours of work

Usual hours of work refers to a typical period rather than the hours worked in a specified reference period. The concept of usual hours applies both to people at work and to people temporarily absent from work, and is defined as the hours worked during a typical week or day. Actual hours worked (for a specific reference period) may differ from usual hours worked due to illness, vacation, strike, overtime work, a change of job, or similar reasons.

Quality declaration - summary

Institutional environment

Labour Force statistics are compiled from the Labour Force Survey which is conducted each month throughout Australia as part of the Australian Bureau of Statistics (ABS) household survey program. For information on the institutional environment of the Australian Bureau of Statistics (ABS), including the legislative obligations of the ABS, financing and governance arrangements, and mechanisms for scrutiny of ABS operations, please see [ABS Institutional Environment](https://www.abs.gov.au/websitedbs/d3310114.nsf/4a256353001af3ed4b2562bb00121564/10ca14cb967e5b83ca2573ae00197b65!) (<https://www.abs.gov.au/websitedbs/d3310114.nsf/4a256353001af3ed4b2562bb00121564/10ca14cb967e5b83ca2573ae00197b65!>

[OpenDocument](#)..

Relevance

The Labour Force Survey provides monthly information about the labour market activity of Australia's resident civilian population aged 15 years and over. The Labour Force Survey is designed to primarily provide estimates of employment and unemployment for the whole of Australia and, secondarily, for each state and territory.

Timeliness

The Labour Force Survey enumeration begins on the Sunday between the 5th and 11th of the month, except for the Christmas and New Year holiday period. In December enumeration starts between the 3rd and 9th (4 weeks after November enumeration begins). In January enumeration starts between the 7th and 13th (5 weeks after December enumeration begins).

Key estimates from the Labour Force Survey are published in two stages. The first, Labour Force, Australia (cat. no. 6202.0), is released 39 days after the commencement of enumeration for the month, with the exception of estimates for December which are published 46 days after the commencement of enumeration.

The second stage includes detailed data that were not part of the first stage and are published in [Labour Force, Australia, Detailed - Electronic Delivery](https://www.abs.gov.au/ausstats/abs@.nsf/mf/6291.055.001) (<https://www.abs.gov.au/ausstats/abs@.nsf/mf/6291.055.001>) (cat. no. 6291.055.001) and [Labour Force, Australia, Detailed, Quarterly](https://www.abs.gov.au/ausstats/abs@.nsf/mf/6291.055.003) (<https://www.abs.gov.au/ausstats/abs@.nsf/mf/6291.055.003>) (cat. no. 6291.055.003). The second stage is released 7 days after the first stage.

Accuracy

The Labour Force Survey is based on a sample of private dwellings (approximately 26,000 houses, flats etc) and non-private dwellings, such as hotels and motels. The sample covers about 0.32% of the Australian civilian population aged 15 years or over. The Labour Force Survey is designed primarily to provide estimates of key labour force statistics for the whole of Australia and, secondarily, for each state and territory.

Two types of error are possible in an estimate based on a sample survey: non-sampling error and sampling error.

Non-sampling error arises from inaccuracies in collecting, recording and processing the

data. Every effort is made to minimise reporting error by the careful design of questionnaires, intensive training and supervision of interviewers, and efficient data processing procedures. Non-sampling error also arises because information cannot be obtained from all people selected in the survey. The Australian Labour Force Survey receives a higher level of co-operation from individuals in selected dwellings compared to other countries, with the average response rate over the past 3 years being 92.0 per cent, and the average rate over the past year being 91.75 per cent (to the nearest quarter of a per cent, in rounded terms). See Glossary for definition of response rate.

Sampling error occurs because a sample, rather than the entire population, is surveyed. One measure of the likely difference resulting from not including all dwellings in the survey is given by the standard error. There are about two chances in three that a sample estimate will differ by less than one standard error from the figure that would have been obtained if all dwellings had been included in the survey, and about nineteen chances in twenty that the difference will be less than two standard errors.

Standard errors of key estimates and movements since the previous month are available in Labour Force, Australia (cat. no. 6202.0). The standard error of other estimates and movements may be calculated by using the spreadsheet contained in [Labour Force Survey Standard Errors, Data Cube \(<https://www.abs.gov.au/ausstats/abs@.nsf/PrimaryMainFeatures/6298.055.001?OpenDocument>\)](https://www.abs.gov.au/ausstats/abs@.nsf/PrimaryMainFeatures/6298.055.001?OpenDocument) (cat. no. 6298.055.001).

Coherence

The ABS has been conducting the Labour Force Survey each month since February 1978. While seeking to provide a high degree of consistency and comparability over time by minimising changes to the survey, sound survey practice requires careful and continuing maintenance and development to maintain the integrity of the data and the efficiency of the collection.

The changes which have been made to the Labour Force Survey have included changes in sampling methods, estimation methods, concepts, data item definitions, classifications, and time series analysis techniques. In introducing these changes the ABS has generally revised previous estimates to ensure consistency and coherence with current estimates. For a full list of changes made to the Labour Force Survey see the [History of Changes \(<https://www.abs.gov.au/ausstats/abs@.nsf/Lookup/by%20Subject/6102.055.001~Feb%202018~History%20of%20Changes~History%20of%20Changes~0>\)](https://www.abs.gov.au/ausstats/abs@.nsf/Lookup/by%20Subject/6102.055.001~Feb%202018~History%20of%20Changes~History%20of%20Changes~0) in Labour Statistics: Concepts, Sources and Methods (cat. no. 6102.055.001).

Interpretability

The key estimates from the Labour Force Survey are available as original, seasonally adjusted and trend series. Seasonal adjustment is a means of removing the effects of normal seasonal variation from the series so other influences on the series can be more clearly recognised. Seasonal adjustment does not aim to remove the irregular influences which may be present and therefore month-to-month movements may not be reliable indicators of underlying behaviour. To assist in interpreting the underlying behaviour, the ABS produces the trend series by smoothing the seasonally adjusted series to reduce the impact of the irregular component. For further information, see [A Guide to Interpreting Time Series - Monitoring Trends \(<https://www.abs.gov.au/AUSSTATS/abs%40.nsf/DetailsPage/1349.02003?OpenDocument>\)](https://www.abs.gov.au/AUSSTATS/abs%40.nsf/DetailsPage/1349.02003?OpenDocument) (cat. no. 1349.0).

Further information on the terminology and other technical aspects associated with statistics from the Labour Force Survey can be found in the publication Labour Force, Australia (cat. no. 6202.0), which contains detailed Explanatory Notes, Standard Error information and a Glossary.

Symbols and abbreviations

[Show all](#)

| Symbol | Definition |
|--------------------|---------------------------------|
| '000 | thousands |
| % | percentage |
| ABS | Australian Bureau of Statistics |
| CAI | computer assisted interviewing |
| cat. no. | catalogue number |
| Civ. pop. | civilian population |
| ERP | estimated resident population |
| Emp. to pop. ratio | employment to population ratio |
| f/t | full time |
| LFS | Labour Force Survey |
| NILF | not in the Labour Force |
| Part. rate | participation rate |
| p/t | part time |
| pts | percentage points |

| Symbol | Definition |
|-------------|---------------------|
| Seas adj. | seasonally adjusted |
| Unemp. rate | unemployment rate |